

I claim:

1. A modular connecting system for connecting an external device to a fieldbus system, comprising:

a fieldbus-specific fieldbus interface circuit;

a fieldbus-independent interface device connected to said interface circuit;

said interface device having operating modes and to be selectively connected to an external device including at least one:

sensor having a varying degree of complexity; and

actuator having a varying degree of complexity;

said interface device connecting the external device to said interface circuit during parallel signal transmission and serial signal transmission; and

said interface device programmed to autonomously check a type of the external device connected to said interface device and to select an appropriate subset of said operating modes for the type of the external device.

2. The connecting system according to claim 1, wherein:

    said operating modes include a first operating mode and a second operating mode; and

    said interface device has an electronic circuit programmed to set up said interface device by selecting one of said first operating mode and said second operating mode.

3. The connecting system according to claim 2, wherein said electronic circuit is a microcontroller.

4. The connecting system according to claim 2, wherein:

    said operating modes include:

    a first operating mode for parallel signal input; and

    a second operating mode for serial signal input;

    said interface device receives an operating voltage;

    said interface device is programmed:

        to operate in said second operating mode when the operating voltage is switched on;

to send a serial test message to the external device connected to said interface device and to wait for a response from the external device; and

to switch to said first operating mode if the response is not received by said interface device.

5. The connecting system according to claim 1, including a fieldbus plug-in apparatus, said interface device being integrated in said fieldbus plug-in apparatus.
6. The connecting system according to claim 1, wherein said interface device is programmed to output a serial output signal in all of said operating modes.
7. The connecting system according to claim 1, wherein said interface device directly connects to the external device by a standard plug-in apparatus having a standardized connector wiring.
8. The connecting system according to claim 1, including a standard plug-in apparatus having a standardized connector wiring, said interface device directly connecting to the external device by said standard plug-in apparatus.

9. A modular connecting system for connecting an external device to at least one fieldbus cable of a fieldbus system, the connecting system comprising:

a fieldbus plug to be removably connected to the at least one fieldbus cable;

said fieldbus plug having:

a fieldbus-specific fieldbus interface circuit to be connected to at least one fieldbus cable; and

a fieldbus-independent interface device connected to said interface circuit;

said interface device having operating modes and to be selectively connected to an external device;

said interface device connecting the external device to said interface circuit during parallel signal transmission and serial signal transmission; and

said interface device programmed to autonomously check a type of the external device connected to said interface device and to select an appropriate subset of said operating modes for the type of the external device.

10. In a fieldbus system having at least one fieldbus-specific fieldbus interface circuit, a modular connecting system for connecting an external device to the fieldbus system, the connecting system comprising:

a fieldbus-independent interface device connected to the interface circuit;

said interface device having operating modes and to be selectively connected to the external device;

said interface device connecting the external device to the interface circuit during parallel signal transmission and serial signal transmission; and

said interface device programmed to autonomously check a type of the external device connected to said interface device and to select an appropriate subset of said operating modes for the type of the external device.

11. A modular connecting system for a fieldbus system, comprising:

a fieldbus-specific fieldbus interface circuit;

a fieldbus-independent interface device connected to said interface circuit;

sensors having types and varying degrees of complexity;

actuators having types varying degrees of complexity;

said interface device having operating modes and selectively connected to one of said sensors and said actuators;

said interface device connecting said one of said sensors and said actuators to said interface circuit during parallel signal transmission and serial signal transmission; and

said interface device programmed to autonomously check a type of said one of said sensors and said actuators connected to said interface device and to select an appropriate subset of said operating modes for said type of said sensors and said actuators.